

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A transconductance circuit to convert a differential input voltage, supplied as two signals on two inputs, into a differential output current, characterized in that, where each of the two signals of said differential input voltage is supplied to each input through a follower transistor connected to said input by its emitter and receives said signal on a control electrode, each of the two inputs of the transconductance circuit is connected to a respective current source that is dynamically controlled by the other input of the transconductance circuit, said current source being such that the current supplied to each input by said current source eliminates current variations caused by voltage variations of the input voltage signal,

wherein the transconductance circuit comprises two sides, each side comprising an input, an output, at least a first transistor having a control electrode coupled for receiving a bias voltage, a first electrode connected to said output and a second electrode connected to said input through a resistor, a second transistor having a first electrode and a control electrode in common to said input and a second electrode connected to a power supply terminal, and wherein the first and second transistors of the first side are different from the first and second transistors of the second side.

2. (Canceled)

3. (Previously Presented) The transconductance circuit of claim 1, wherein said first and second transistors are of the same size.

4. (Previously Presented) The transconductance circuit of claim 1, wherein each side further includes a third transistor of the same size as said second transistor, said third transistor has a control electrode coupled to said first transistor and control electrodes of said second transistor, a first electrode connected to the output of the other side and a second electrode connected to said power supply terminal.

5. (Previously Presented) The transconductance circuit of claim 1, wherein said current source includes a current mirror mirroring the current passing through said second transistor with a gain of two.

6. (Previously Presented) The transconductance circuit of claim 5, wherein said current mirror includes a mirror transistor of twice the size of said second transistor, said mirror transistor having a control electrode connected to the first and control electrodes of said second transistor, a first electrode connected to the input of the other side and a second electrode connected to said power supply terminal.

7. (Previously Presented) A chip intended to be implemented in a transceiver comprising at least a transconductance as claimed in claim 1.

8. (Previously Presented) A transceiver of radio-frequency signals comprising at least one chip as claimed in claim 7.